



















# NOAA OCIO Cloud Update

NESDIS Cloud Summit

November 21, 2019





### **Session Outline**

- NOAA OCIO Overview
- NOAA Cloud Utility Contract Overview and Onboarding
- Unisys Cloud Utility Contract Professional Services
- NOAA Big Data Program Contract
- Question and Answer Period





















### NOAA Cloud Utility Contract Overview and Onboarding

Cameron Shelton and Stefan Leeb





### **Program Description**

- The National Oceanic and Atmospheric Administration (NOAA) Chief Information Officer (CIO) Council has established a priority to provide a streamlined acquisition mechanism and delivery mechanism to facilitate procuring and enabling cloud services throughout NOAA, for both mission and mission-enabling services.
- Multiple cloud pilots and implementation projects have been established for Software as a Service (SaaS), Platform as a Service (PaaS) and Infrastructure as a Service (IaaS) to meet the needs of individual line and staff offices.
- With this experience, NOAA is now ready to fully embrace the cloud using large scale cloud services which requires the establishment of a scalable acquisition vehicle and concept of operations.
- This new cloud initiative integrates with NOAA cyber security, NWAVE and ICAM authentication services to establish a cohesive cloud enterprise service to meet NOAA mission requirements and minimize risk.

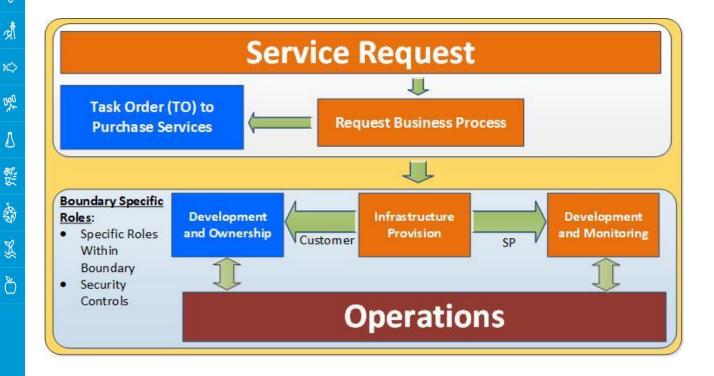




### **Program Description**

- Single award blanket purchase agreement with an estimate of \$144M contract value, with one base year and four option years was awarded at the end of Sept 2019.
- Utility cloud or multi-cloud services from all cloud providers and service vendors, e.g. Amazon Web Services, Google Compute Platform and Microsoft Azure, including all of their cloud service offerings, present and future.
- Includes but not limited to Infrastructure as a Service, Platform as a Service and Software as a service, Content Delivery Services (CDN), Virtual Servers, and Separate isolated subnets (Virtual private networks).
- Federal Risk and Authorization Management Program (FedRAMP) Certification for Moderate and High, but also allow for Non-FedRAMP services if NOAA OCIO reviews/accepts risks for private cloud deployments.

### **Using the Contract**







### **Using the Utility Contract**

- Contact <u>ecs.portal@noaa.gov</u> to initiate Onboarding process
- Management Portal is expected to be available Q3 FY20
- Service costs are a combination of OCIO and Professional Services costs. Revised SLA will show service rates and service costs breakdown.





















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### Unisys Cloud Utility Contract Professional Services

Yogesh Muthuswamy, Unisys





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### Unisys CloudForte" - Unisys Cloud Services Portfolio



#### Advisory and Organizational Change Management



Consume

Providing accurate and transparent billing for all cloud services



#### Command

Go fast with confidence, securely accessing all cloud platform services.



#### Accelerate

Migrate quickly and de-risk your cloud adoption.



#### Transform

Become a cloud native organization.



CloudForte™ provides entry points at any stage in your journey to the cloud



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#### CloudForte™ Acceleration Services

Migrate quickly and de-risk your cloud adoption



### The Unisys Difference

#### Comprehensive services from a proven Federal cloud pioneer

Cloud adoption requires a steady and experienced hand. Unisys brings large scale migration and modernization experience — with Azure and AWS certified professionals - to bear to minimize your risk.

#### A practical approach to migration

We use an industrial scale approach to identify and prioritize legacy IT assets to migrate, enabling Federal customers to measurably increase return-on-investment as quickly as possible.

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#### CloudForte™ Transformation Services

Become a cloud native organization



#### Enablement

Making the Culture Shift to Cloud

- Enterprise Cloud Strategy Organizational Change Mgmt.
  - Strategic & Tactical Comms
    - Training & Enablement
    - Governance
- New AWS Service Injection/Strategy
- AWS Operational Integration
- AWS Native Services Pilot



#### Migration

Multiple Treatments for Moving Workloads to the Cloud

- White Glove Application Migration
- COBOL Rebuild
  - zOS/Solaris/AIX/Unix Replatform
  - Oracle Legacy to AWS

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#### Accelerated ATO

- Application Accreditation/ATO
- Cyber/Biometric Identity Services



#### Innovation

#### Optimize for Cloud Native

- Serverless Architecture
- Microservices Architecture
- Cloud Native Development
- Big Data / Data Analytics
- · High Performance Computing
- Advanced Operational Services

#### Discovery

#### Baseline for Optimization High Availability Baseline

- · Enterprise Scale
- Performance Baseline
- · Advanced Monitoring Service

#### The Unisys Difference

#### Industrial grade modernization of legacy applications

Rid your organization of costly and predatory enterprise license agreements by tackling the hard migrations with our advanced Migration services

#### Security-first mindset

If you're not already thinking about getting and keeping an ATO in the cloud, you need to start now. We've been down this path before and will help you accelerate your ATO process.

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### **NOAA Big Data Program Contract**

Jon O'Neil

























### **Big Data Program History (4/2015-5/2019)**

- Cooperative Research and Development Agreements
  - 5 separate but identical 4-year agreements (Google, IBM, Microsoft, AWS, OCC)
- Industry provides access to NOAA's open data to all
  - Data storage and egress are free, are not to be sold
  - Collaborators can monetize services based on data
  - NOAA provides data and expertise
- Combines 3 powerful resources based on NOAA's open data:
  - NOAA's science and subject matter expertise
  - 2. Industry's data storage and access expertise
  - 3. Cloud's scalable and on-demand processing capability























### **Big Data Program Update (post-CRADA)**

- 2 Year IDIQ contract with 4 option periods (2 years each)
- Rules of engagement are the same as CRADA phase
  - Data are still onboarded based on requests from CSPs
  - NOAA moves data through data broker on a "best effort" basis
- NOAA asked for 5PB of storage per contract awardee
  - Governance structure is TBD -- currently being worked on by CONOPS group
  - Dr. Jacobs directive is to be 'strategic' in how NOAA controlled storage is used
- Is it available for use now?
  - 2 contracts are signed; still negotiating with 3rd vendor



### **What About Egress?**

- Partners store data and provide access for free for the purpose of <u>public data access</u>
  - From the NOAA Allocation, and/or
  - Contract awardees may also request any NOAA open data, and/or
  - Any NOAA data that are being stored by NOAA on the
     Partners' commercial cloud platforms, using other contract
     vehicles for mission purposes, egress for free for the
     purpose of public data access.



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### What About Task Orders?

The basic provisions of the BDP contract are contained in the base contractual agreement and have already been negotiated. Therefore, there should not be a significant need for additional task orders to be issued for the on-boarding of datasets under the BDP contract.

- Existing datasets already covered under the CRADA portion of the BDP will "roll-over" to the contract and not require new task orders.
- AGO can issue a single, broad task order to cover new datasets so as to obviate the need for individual task orders for each dataset covered under the BDP contract.
- Inheritance of the egress provision of the BDP contract to other NOAA contract vehicles, to which it applies, should be specified in the task order issued covering that commercial acquisition activity (i.e., not under the BDP contract but under the cloud utility contract).





## BDP and Utility Contract Integration – Use Cases

NESDIS purchases compute and storage resources through the cloud utility contract to produce and store cproduct x> on CSP A's platform.

If CSP A is a contract awardee under the BDP contract, product x can egress for the purpose of providing <u>public data access</u> for free. The mechanics of this are TBD.



### **Question and Answer Panel**

- Cloud Utility Cameron Shelton and Stefan Leeb
- Big Data Program Jon O'Neil
- Unisys Yogesh Muthuswamy
- Cyber Security Division Chi Kang
- NWAVE Dave Mauro

